

Translation

PATENT COOPERATION TREATY

PCT/EP2003/013060



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2151/Dr.Tbr	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/013060	International filing date (<i>day/month/year</i>) 21 November 2003 (21.11.2003)	Priority date (<i>day/month/year</i>) 13 January 2003 (13.01.2003)
International Patent Classification (IPC) or national classification and IPC C07C 67/03		
Applicant RÖHM GMBH & CO. KG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 08 April 2004 (08.04.2004)	Date of completion of this report 03 November 2004 (03.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

☐ the international application as originally filed.

☒ the description, pages 1-25, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, Nos. 1-15, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. _____, filed with the letter of _____,
Nos. _____, filed with the letter of _____.

☒ the drawings, sheets/fig 1/4-4/4, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

D1: DE-A-100 26 644 (BASF AG) 6 December 2001
(2001-12-06)

D2: DE-A-23 19 688 (RHONE PROGIL) 6 December 1973
(1973-12-06).

The present application relates to a method for the continuous production of higher (meth)acrylates by transesterification of methyl (meth)acrylates with higher alcohols in the presence of a catalyst, characterized in that the elution stream of the vacuum evaporation stage and/or film evaporator is divided and partially fed to the reaction apparatus.

D1 represents the closest prior art and differs from the subject matter of the present application in that the special separation features of the vacuum evaporation stage and/or film evaporator are not explicitly disclosed.

The technical problem can therefore be considered that of providing a further method for the continuous production of higher (meth)acrylates. The solution is defined in the independent claims and concerns the separation types vacuum evaporation stage and/or film evaporator. This solution cannot be rated as obvious to a person skilled in the art from the closest prior art.

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Consequently, the subject matter of claims 1-15 meets the criteria of PCT Article 33(2) and (3).

The expression "higher" in connection with methyl (meth)acrylates is unclear (PCT Article 6), because the number of carbon atoms from which one can speak of higher esters is not clearly specified.